

SCDHEC *Earth Today*

Lesson Grade Level: 6

Lesson Title: R-E-C-Y-C-L-E!

SC State Science Standard(s):

- (I, A, 8, a) Use mathematics to gather, organize, and present data.
- (I, B, 1, a) Identify a specific need for a product.
- (I, B, 1, b) Determine whether the product will meet the needs and be used.

Segment Link:

This relates to the entire video.

Lesson Overview:

This is part of a long-term recycling project that your students can either start if none exists at your school, or take a more active part in if there is one already in operation at your school.

Background:

Recycling is the collection, separation, processing and marketing of materials so they can be used again. Recycling is an important environmental practice. The materials collected in recycling programs are not garbage or waste – they are valuable commodities that represent an essential component of today's marketplace. Recycled plastic soft drink bottles can be made into T-shirts, carpeting and filling for ski jackets. Recycled aluminum cans can be made into new aluminum cans. Recycled glass, which can be recycled forever, can be made into new glass. Recycled paper and cardboard can be made into paper, pencils and other products. Recycling saves natural resources, money and energy. Recycling helps reduce or eliminate pollution associated with the mining or extraction of natural resources. Recycling reduces the need for new landfills and incinerators – and given that is another way to protect the environment. Landfills are a fact of life. We all throw things away everyday. Where is away? Away usually is a landfill. We throw things away and don't think of them anymore. Recycling – and other practices such as reuse, waste reduction and composting – keep materials out of landfills. But not everything can be recycled. Many people want to protect the environment and conserve natural resources. Recycling can be an easy and convenient way to accomplish those goals. Recycling is not a perfect solution but it does make a difference for the environment.

Lesson Plan:

1. First, your class should participate in a discussion after the video of what they can do and what the importance of recycling is. Then, split them into small groups to come up with a program at school. You could have each group work on a different task.
 - A. Advertisement (getting the word out to the school, designing posters, coming up with incentive programs for each class, getting students to bring materials from home to add to their class totals).
 - B. Research (looking up information on the Internet or by calling companies about the advantages of recycling and the disadvantages of landfills).
 - C. Collection (deciding how the recyclable materials will be collected and sorted, as well as contacting the recycling plant for delivery).
2. As the program gets going, evaluate on a regular basis how things are going and if there is anything that can be done to improve the collection. Modify as necessary.

3. The group that did research as part of the earlier activity should come up with numbers of how much trash is generated each day, week, month, year, etc. They should also come up with how much recyclable material is used in the production of different goods after the recycled materials are refined.
4. Using these numbers, the students could post updates throughout the school (or on the morning announcements) on a weekly or bi-weekly basis of how successful the program is in terms of how much trash has been reduced from going into a landfill and also how much material can be produced by what they have collected.
5. This information can then be presented using graphs or charts.